

THE INVENTION CLAIMED IS:

1. A method for recovering data in a storage device comprising:

defining in the data storage device information related to a first data structure with a plurality of copies of a second data structure; and

rebuilding the information related to the first data structure using the plurality of copies of the second data structure upon corruption thereof.

2. The method as claimed in claim 1 wherein: the storage device performs a write operation; and defining the information related to a first data structure includes updating the plurality of copies of the second data structure prior to the write operation.

3. The method as claimed in claim 1 wherein defining the information related to a first data structure includes differentiating which of the plurality of copies of the second data structure has the most recent data.

4. The method as claimed in claim 1 wherein defining the information related to a first data structure includes selecting each of the plurality of copies of the second data structure so at most one of the plurality of copies of the second data structure can be corrupted.

5. The method as claimed in claim 1 wherein: the first data structure has an intended state; and rebuilding the information related to the first data structure includes using one or more of the plurality of copies of the second data structure to rebuild the intended state of the first data structure before corruption thereof.

6. The method as claimed in claim 1 wherein: the first data structure has a plurality of file management structures; and rebuilding the information related to the first data structure includes using one or more of the plurality of copies of the second data structure to find other file management structures after data corruption thereof.

7. The method as claimed in claim 1 wherein the storage device includes pre-erased recovery blocks; and defining the information related to a first data structure includes writing the plurality of copies of the second data structure to the pre-erased recovery blocks.

8. A method for recovering data in a memory comprising:

defining in the memory a location of a data structure with a plurality of base block copies; and

rebuilding the location of the data structure using the plurality of base block copies in the event of data corruption thereof.

9. The method as claimed in claim 8 wherein the memory performs write operations; and defining the location of a data structure includes updating the plurality of base block copies prior to a write operation.

10. The method as claimed in claim 8 wherein defining the location of the data structure includes differentiating which of the plurality of base block copies has the most recent data.

11. The method as claimed in claim 8 wherein defining the location of the data structure includes selecting each of the plurality of base block copies so at most one of the plurality of base block copies can be corrupted.

12. The method as claimed in claim 8 wherein: the data structure has an intended state; and rebuilding the location of the data structure includes using one or more of the plurality of base block copies to rebuild the intended state of the data structure before corruption thereof.

13. The method as claimed in claim 8 wherein the data structure includes pointers to other data structures selected from a group consisting of remap information, wear-leveling tables, configuration data, recovery information, and a combination thereof.

14. The method as claimed in claim 8 wherein the memory includes pre-erased recovery blocks; and defining the location of a data structure includes writing the plurality of base block copies to the pre-erased recovery blocks.

15. A method for recovering data in a non-volatile memory comprising:  
defining in the non-volatile memory a location of a data structure with at least two base block copies; and  
rebuilding the location of the data structure in the event one base block copy cannot be located or verified by using another base block copy.

16. The method as claimed in claim 15 wherein the non-volatile memory performs write operations; and the base block copies are updated prior to a write operation.

17. The method as claimed in claim 15 wherein rebuilding the location of the data structure includes differentiating which base block copy has the most recent data .

18. The method as claimed in claim 15 wherein defining the location of the data structure includes selecting each of the base block copies so at most one can be corrupted.

19. The method as claimed in claim 15 wherein: the non-volatile memory has an intended state; and each of the base block copies can be used to rebuild the intended state of the non-volatile memory before corruption thereof.

20. The method as claimed in claim 15 wherein the data structure includes pointers to other data structures selected from a group consisting of remap information, wear-leveling tables, configuration data, recovery information, and a combination thereof.

21. The method as claimed in claim 15 wherein the non-volatile memory includes  
5 pre-erased recovery blocks; and the base block copies are written to pre-erased recovery blocks.